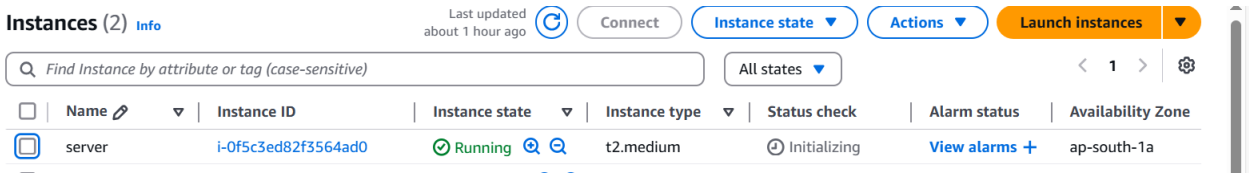
How to Create Docker Image and run a container using Dockerfile

1.Launch EC2 instance



2. Connect to EC2 Instance:

Before you connect to your EC2 instance you must start your EC2 instance.
Goto your AWS EC2 dashboard and click on **EC2** after that click on **Instances(running)**.

3. Install Docker on AWS EC2 Instance:

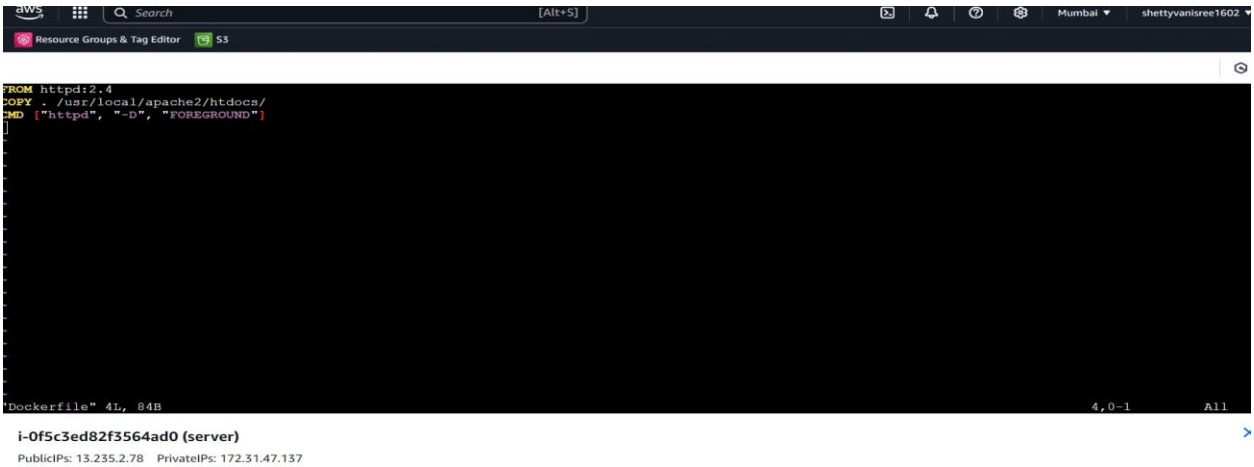
The next requirement is we need to install Docker on the EC2 instance.

Now before we do the DOCKER installation lets first update the package manager of the virtual machine -

sudo apt-get update

sudo apt install docker.io

4.Create a folder named dockerfile.



5. Now, build a Docker Image using the docker build command.

```
drwxr-xr-x 2 root root   4096 Dec 14 14:49 js/
-rw-r--r-- 1 root root  13005 Dec 14 14:49 news.html
drwxr-xr-x 5 root root   4096 Dec 14 14:49 static-cycle-website-jenkins-docker--master/
root@ip-172-31-47-137:~/static-cycle-website# vi Dockerfile
root@ip-172-31-47-137:~/static-cycle-website# docker build -t website .
DEPRECATED: The legacy builder is deprecated and will be removed in a future release.
            Install the buildx component to build images with BuildKit:
            https://docs.docker.com/go/buildx/

Sending build context to Docker daemon  23.93MB
Step 1/2 : FROM httpd:2.4
2.4: Pulling from library/httpd
6c0965b23a04: Pull complete
d7ad38c6dd97: Pull complete
4f4fb700ef54: Pull complete
79b49624e34b: Pull complete
7d9f97915db2: Pull complete
9bd25d4f7b77: Pull complete
Digest: sha256:f4c5139eda466e45814122d9bd8b886d8ef6877296126c09b76dbad72b03c336
Status: Downloaded newer image for httpd:2.4
 ---> 494b2b45fd74
Step 2/2 : COPY . /usr/local/apache2/htdocs/
 ---> 2e79709195e7
Successfully built 2e79709195e7
Successfully tagged website:latest
root@ip-172-31-47-137:~/static-cycle-website#
```

i-0f5c3ed82f3564ad0 (server)

PublicIPs: 13.235.2.78 PrivateIPs: 172.31.47.137

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docker build –t website .

6. Let's verify the Docker Image by running the following command.

`docker images`

```
root@ip-172-31-47-137:~# docker images
REPOSITORY                          TAG       IMAGE ID       CREATED         SIZE
vanisrimuddishetty/cyclewebsite     latest    2514d88c4730   15 hours ago    171MB
cyclewebsite                        latest    2514d88c4730   15 hours ago    171MB
static-website                      latest    2514d88c4730   15 hours ago    171MB
websiteimage                        latest    3af7d3da8bfe   16 hours ago    171MB
website                             latest    2e79709195e7   16 hours ago    171MB
```

Verifying the docker image

Now, it's time to check if Docker Image is successfully working by running a container and verifying all the Dockerfile commands inside the container.

docker run -it -d --name Conta -p 94:80 vanisrimuddishetty/static-website

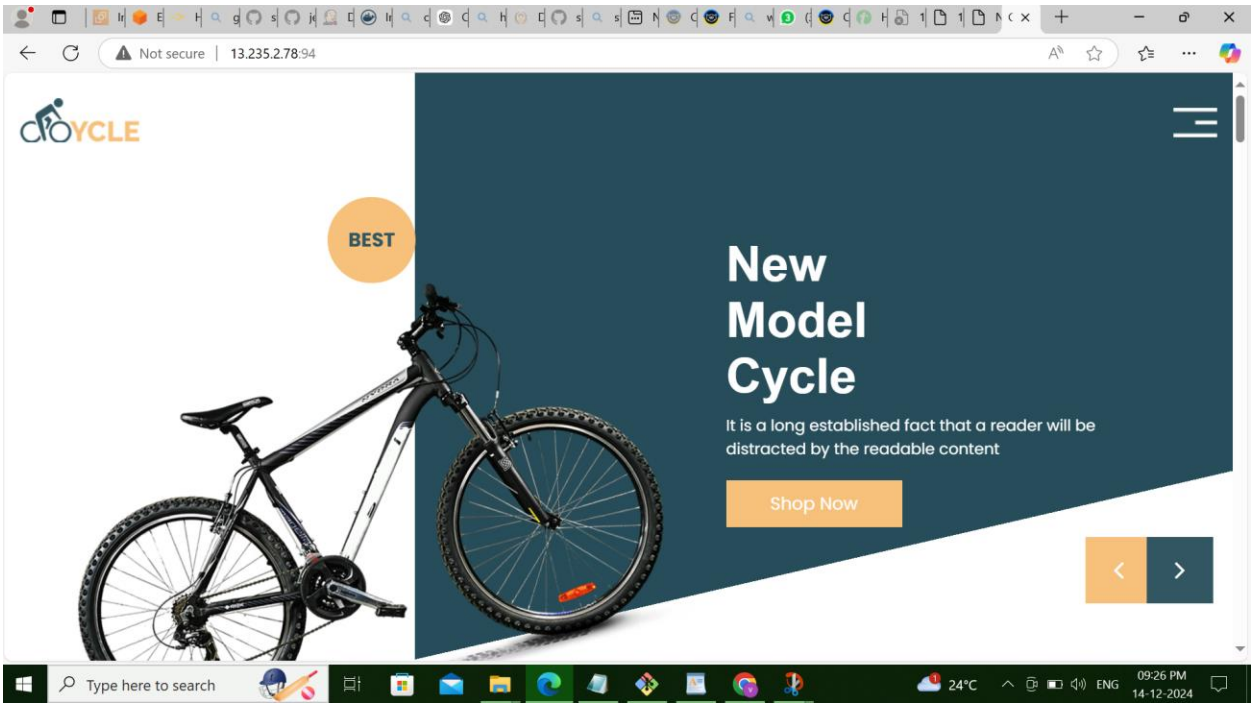
Great, you will notice that the commands declared in Dockerfile are executed in the below snap. The new docker Image was created successfully, which further you tested by launching a docker container.

```
root@ip-172-31-47-137:~/static-cycle-website# docker tag static-website vanisrimuddishetty/cyclewebsite
root@ip-172-31-47-137:~/static-cycle-website# docker push vanisrimuddishetty/cyclewebsite
Using default tag: latest
The push refers to repository [docker.io/vanisrimuddishetty/cyclewebsite]
afc102e1b3a3: Pushed
d284c6380ce3: Pushed
dac6ca30c6d4: Mounted from library/httpd
9e527e6a3aab: Mounted from library/httpd
6f70bf18a086: Pushed
9a0dc0ce5a73: Pushed
90f1022b22a9: Mounted from library/httpd
latest: digest: sha256:d80fa43c3668f489ebcbe3cedbe80f3a3bd45e04f11e81380f09e25cee297697 size: 1784
root@ip-172-31-47-137:~/static-cycle-website# docker run -it -d --name conta -p 94:80 vanisrimuddishetty/cyclewebsite:latest
0ce17fccfb02ad1446962abce97d9e2545ac1274c0621461f2296ff701bb2951
root@ip-172-31-47-137:~/static-cycle-website#
```

i-0f5c3ed82f3564ad0 (server)

PublicIPs: 13.235.2.78 PrivateIPs: 172.31.47.137

FINAL OUTPUT:


Not secure | 13.235.2.78:94
CYCLE
BEST
New
Model
Cycle
It is a long established fact that a reader will be distracted by the readable content
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14-12-2024